This is a digital copy of a book that was preserved for generations on library shelves before it was carefully scanned by Google as part of a project to make the world's books discoverable online.

It has survived long enough for the copyright to expire and the book to enter the public domain. A public domain book is one that was never subject to copyright or whose legal copyright term has expired. Whether a book is in the public domain may vary country to country. Public domain books are our gateways to the past, representing a wealth of history, culture and knowledge that's often difficult to discover.

Marks, notations and other marginalia present in the original volume will appear in this file - a reminder of this book's long journey from the publisher to a library and finally to you.

Usage guidelines

Google is proud to partner with libraries to digitize public domain materials and make them widely accessible. Public domain books belong to the public and we are merely their custodians. Nevertheless, this work is expensive, so in order to keep providing this resource, we have taken steps to prevent abuse by commercial parties, including placing technical restrictions on automated querying.

We also ask that you:

+ *Make non-commercial use of the files* We designed Google Book Search for use by individuals, and we request that you use these files for personal, non-commercial purposes.

+ *Refrain from automated querying* Do not send automated queries of any sort to Google's system: If you are conducting research on machine translation, optical character recognition or other areas where access to a large amount of text is helpful, please contact us. We encourage the use of public domain materials for these purposes and may be able to help.

+ *Maintain attribution* The Google "watermark" you see on each file is essential for informing people about this project and helping them find additional materials through Google Book Search. Please do not remove it.

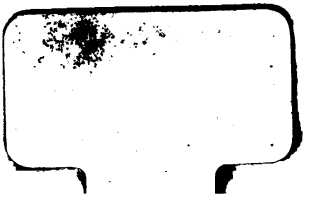
+ *Keep it legal* Whatever your use, remember that you are responsible for ensuring that what you are doing is legal. Do not assume that just because we believe a book is in the public domain for users in the United States, that the work is also in the public domain for users in other countries. Whether a book is still in copyright varies from country to country, and we can't offer guidance on whether any specific use of any specific book is allowed. Please do not assume that a book's appearance in Google Book Search means it can be used in any manner anywhere in the world. Copyright infringement liability can be quite severe.

About Google Book Search

Google's mission is to organize the world's information and to make it universally accessible and useful. Google Book Search helps readers discover the world's books while helping authors and publishers reach new audiences. You can search through the full text of this book on the web at `http://books.google.com/`

MAY FLOWERS.

191. k.
8 8.



May Flowers;

A Popular and Scientific description of the Wild Flowers of the Month; with their Habitats, Properties, &c.

BY

THE REV. JAMES HARRIS, M.A.,

Head Master of the Cathedral Grammar School, Chester; and Chairman of the Botanical Section of the Chester Society of Natural Science.

CHESTER:
PHILLIPSON AND GOLDER, EASTGATE ROW.
LONDON: GRIFFITH AND FARRAN.
1872.

191. k. 88.

CHESTER:
PRINTED BY PHILLIPSON AND GOLDER, EASTGATE ROW.

Preface.

A few words may be necessary, to account for the publication of the following trifle :—

In the summer of 1870, the Rev. Canon Kingsley, during his three months' residence in Chester, delivered a course of lectures on Botany to the members of the City Library and Reading Room. These lectures, as was to be expected, excited a considerable interest, and led many of those who heard them to wish for further instruction in the subject. Accordingly, on the expiration of the Canon's term of residence, a deputation from the Class waited upon me with a request that I would continue the lectures. I was reluctant to do so, but as I felt that the interest that had been excited would, in all probability, die away, if no attempt were made to keep it alive, I consented to give a few lectures on Structural Botany during the autumn and winter: these lectures were continued until the Canon's return to Chester, in 1871. I selected *Structural Botany* as the subject of my lectures, as several of the Class felt that, from their imperfect acquaintance with the rudiments of the

Science, they had not profited so much by Canon Kingsley's lectures as they would otherwise have done; and I thought that some instruction in the *Grammar* of the Science would be a fit preparation for the Canon's more elaborate lectures on Systematic and Geographical Botany, which I expected him to resume on his coming into residence. The Canon, however, had decided upon Geology, as the subject of his second course of lectures. With a view therefore to keep up some degree of interest in the Science of Botany, I wrote for the *Chester Chronicle* a series of papers on May Flowers: these papers several friends, both in Chester and elsewhere, have requested me to print in a form more convenient than the columns of a newspaper—hence the publication of this little book, which will, I trust, meet the wishes of those at whose request it is issued, and stimulate others, who may read it, to the study of a subject, which cannot fail to be productive of pleasure and profit.

I have added an Index, shewing at a glance the scientific and popular names of each plant mentioned in the book, and its position both in the natural and artificial classifications: this may be useful to beginners.

King's School, Chester.

May Flowers.

"March winds and April shower
"Bring forth May flowers.

MARCH, with its cold easterly winds and its equinoctial gales, and April, with its alternations of showers and sunshine, have now passed away, and the "merry month of May" has again come round, gladdening us with its brightness, and giving promise of enjoyment to all lovers of nature. The first-named months are not without their floral attractions, which are the more highly prized because of the scarcity of flowers at that season—the first primrose and violet of the spring are perhaps hailed with greater delight than any of the more showy productions of summer and autumn. The hedge-banks have also for some weeks past been adorned with the Celandine or Pilewort *(Ranunculus Ficaria)*, with its yellow star-like blossoms and its bright green leaves, the praises of which flower have been sung by the poet Wordsworth; the

woods and many shady hedge-rows have been dotted with the pretty Wood Anemone *(Anemone nemorosa)*; the white-flowered Whitlow-grass *(Draba verna)*, a small cruciferous plant, has been abundant on many old walls; the bright yellow Coltsfoot *(Tussilago Farfara)*, a sure sign of a poor soil, has been a conspicuous object in waste places and by the sides of ditches; the white and purple Dead-Nettles (*Lamium album*) and (*Lamium purpureum*) have long displayed their blossoms by the roadsides —indeed both species may be found even in January; the Ground Ivy (*Nepeta Glechoma*), with its trailing stem and its pretty blue flowers, has resumed its place in moist, shady spots under hedges and in woods; and a few others might be named as appearing in March and April: flowers, however, are by no means numerous at this early period of the year, but those we meet with are welcomed as the heralds of summer, and the harbingers of a gay crowd which will soon come pressing upon us in every variety of form and colour. In the present month the number of wild flowers is greatly multiplied, and a country ramble, whether it be in the lanes, or in the fields, or in the woods, will introduce us to some of the most beautiful and interesting specimens of the vegetable kingdom.

Let us take these localities in the order in which we have named them, strolling first along the lanes, which are most easily reached from our respective homes, keeping our eyes open, and peering into the hedge-bottoms and the ditches, as well as the hedges themselves, on both sides of our way. We shall not proceed far in our walk before we come upon a beautiful plant, with deep azure-blue flowers, the Germander Speedwell (*Veronica Chamædrys*), which the uninitiated will persist in calling the Forget-me-not. This latter flower is very different in form, whilst its colour is that of the turquoise. The true Forget-me-not (*Myosotis palustris*), as its specific name indicates, must be looked for in marshy places, in ditches, or by the sides of streams; we shall not meet with it in our present walk, as it is seldom in flower until June, but we may probably find one of its sisters upon some of the dry banks in our way. But to return to our first floral discovery, the Germander Speedwell, which deserves better of us than to be dismissed so hastily. The genus to which it belongs is a very numerous one, containing eighteen native species, whilst a still greater variety may be found in gardens; they are easily known, as they have all a rotate or wheel-shaped corolla, deeply four-cleft, with the lower segment smaller than the

others. The flower has two stamens; it is therefore in the Linnæan class, *Diandria.* The Natural Order, *Scrophulariaceæ*, of which the genus Veronica forms a part, is remarkable for the number of beautiful flowering plants it contains—the Mulleins, the Foxglove, the Snapdragons, various species of Toad-flax, the Mimulus or Monkey-flower, the Speedwells, the Red and Yellow Rattles, the Cow-wheats, &c. A little further on, quite within the hedge, on which it leans for support, is a striking looking flower, with white star-like blossoms; it is the Greater Stitchwort (*Stellaria Holostea*), the most showy species of the genus, of which the Common Chickweed (*Stellaria media*) is the best known example. The Sweet Violet (*Viola odorata*) has disappeared, but we may still find another species, the Dog Violet (*Viola canina*); this is usually of a paler colour, and without the delicious fragrance for which the Sweet Violet is so valued. Should any of our young readers, owing to a cold or other cause, be unable to decide whether the flower they may have found is fragrant or inodorous, they may settle the point by noticing whether the peduncle, or flower-stalk, springs directly from the root, or from the axils of the leaves; in the former case, the flower will be the

Sweet Violet, in the latter, the Dog Violet. The Pansy or Heart's-ease, which by cultivation becomes a really handsome flower, and of which our gardens present so great a variety, is also a Violet (*Viola tricolor*), and is a common weed, both in cultivated fields and by the road-side. The Natural Order, *Violaceæ*, is limited in Britain, and indeed, in Europe, to the single genus *Viola*. The handsome water-plant (*Hottonia palustris*), which is usually called the Water Violet, is in no way related to the Violet, but is closely allied to the Primrose; it is rather a rare plant, and is almost confined to the counties in the southern half of England, and in these it is not often met with.

But we must continue our walk. Let us cross to the other side of the lane, and see what this dry hedge-bank produces. Here is the plant which we hinted that it was possible we might meet with in our walk—the Yellow and Blue Forget-me-not (*Myosotis versicolor*); its colour is now blue with a yellow throat, but when the flower first expands it is of a pale yellow colour, and this change in its hue gives to this species the name of *versicolor*. Near it are two small plants which are worth noticing, the Procumbent Pearlwort (*Sagina procumbens*), and the little Field-Madder (*Sherardia arvensis*); the

former is only two or three inches in height, with minute flowers with pearl-white petals; its generic name, which signifies "fattening food," seems but little applicable to the small dry-looking plants of which the genus consists, but it is said that Linnæus, who gave it this name, supposed that the plants possessed the property of fattening sheep which fed on them. The other little flower, the Sherardia, has whorled leaves, like those of the Sweet Woodruff (*Asperula odorata*) and the Galiums or Bed-straws, to which it is allied, and small terminal heads of pale bluish-lilac flowers: it is to be found in most parts of England, both in corn fields and on hedge-banks, and in many waste places. It may be interesting to some to learn that this little plant, the Sherardia, was so named in compliment to Dr. William Sherard, an eminent English botanist, and a most liberal patron of the science, whose botanical garden at Eltham, in Kent, was famous in the last century, and by whom the Professorship of Botany, in the University of Oxford, was founded, to which university also he bequeathed his botanical library and his very valuable herbarium. Another plant, with flowers somewhat similar to those of the Sherardia, but with very different leaves, the Corn Salad, or Lamb's Lettuce (*Valerianella olitoria*), is

also found in the same localities; it is a favourite salad-plant in France, and the young leaves are occasionally eaten as a salad in our own country.

A little farther on, close by the footpath, is one of our native Geraniums, of which we have about a dozen species. This, which is usually called the Dove's-foot Crane's-bill (*Geranium molle*), is the most common of all, but by no means the least beautiful, whether we regard its flowers or its foliage; the former are in pairs, and are usually of a purplish rose-colour, but are occasionally found white. The leaves of the plant are roundish in form, deeply cut into seven, or sometimes into nine, segments, and are remarkably soft and downy. Most of the Geranium family are characterized by pubescent or downy leaves, but those of the species before us are peculiarly *soft*, and hence its specific name of *molle*. Some of our young readers may perhaps like to be informed that these flowers derive both their scientific and popular names from the resemblance of the long beak in which the carpels or seed-vessels terminate, to the bill of the crane, γερανος (geranos) being the Greek name of this bird. Another species, almost as generally distributed as the last, but in very different situations, as it prefers damp stony places and open woods, is known by the name of

Herb Robert, or Stinking Crane's-bill (*Geranium Robertianum*); its foliage is very different from that of the species we have just described, but equally beautiful, and the plant will be recognized at once as belonging to the same family. The stem and also the leaves are usually of a reddish hue, and the whole plant has a peculiar fetid odour.

Those large glossy halberd-shaped leaves in the bottom of the hedge, many of them with dark purple spots, belong to the *Arum maculatum*, one of the most curious productions of the vegetable kingdom, as well as one of the most beautiful. It is called by several different names—Cuckoo-pint, Wake-robin, Lords-and-Ladies: the latter, perhaps, is that by which it is most widely known. Let us look for the *flower*, which presents one of the most singular forms of inflorescence—a spadix, or club-shaped spike, varying in colour from a light yellowish green to dark purple, is enclosed within a large bract, technically called a spathe, and around the lower part of this spike the flowers are arranged; these flowers are of two kinds, the plant being *monœcious, i.e.*, the male and female organs are in separate flowers; the lower cluster consists of fertile female flowers, with a group of perfect sessile stamens above them; but both above and below these male flowers are two or

three circles of abortive or immature pistils. In the autumn the leaves and spathe and the upper part of the spadix die away, and only a dense cluster of bright scarlet berries remains. These berries are very attractive in appearance, and children should be cautioned against eating them, as they are extremely dangerous; indeed the whole plant, leaves and stem and root, especially the latter, is acrid and poisonous; this poisonous property of the root or corm may, however, be destroyed by repeated washings and the application of heat, and it then yields a nutritious article of diet. The Arum was formerly abundant in Portland Island, and a preparation from its roots was sold under the name of "Portland Sago;" but either from the decrease in the supply of the plant, or, more probably, from the introduction of other more agreeable farinaceous preparations, the "Sago" of the Arum is not now an article of commerce. The powdered root is also said to be used for the adulteration of arrow-root, but there are few localities in which it could be found in sufficient quantity to be worth collecting and preparing for this purpose.

The tall plant near the Arum, with coarsely-toothed heart-shaped leaves and white flowers, is the Garlic Hedge-mustard (*Alliaria officinalis*), or (*Sisym-*

brium Alliaria), or (*Erysimum Alliaria*), for it is called by all these names, botanists not agreeing as to the genus to which it properly belongs. Both the English and the scientific names are expressive of the strong smell of garlic (*Allium*) emitted by the leaves when bruised. Another of its English names is "Sauce Alone," it having been formerly used by country people, both in sauces and in salads; its strong flavour, however, would render it disagreeable to most English palates, although it may be relished by our continental neighbours. From its usual place of growth, by the hedge-side, it is also called "Jack-by-the-Hedge." The Natural Order (*Cruciferæ*), to which this plant belongs, has very marked characteristics; the flowers are cruciform, *i.e.*, the four petals, of which the corolla invariably consists, are arranged in the form of a cross; there are six stamens, four long ones and two short ones; and the fruit is either a long pod, technically termed a *siliqua*, or a short pouch or pod, called a *silicula*. Many of the most common culinary vegetables belong to the Order, such as the Cabbage, Cauliflower, Turnip, Radish, Horse-radish, Mustard, Cress, Water-cress, &c. The Wall-flower, Stock, Candy-tuft, and Honesty, are the principal garden flowers contained in the Order, which is a very large one, comprising about 200

genera, and more than 1600 species, the great majority of which are European. The British flora contains about 80 species. The Order is well distinguished by having *tetradynamous stamens, i e.*, four of greater length than the others, a feature which gives name to the fifteenth class of Linnæus, to which the Order exactly corresponds.

We have been so intent upon the occupants of the hedge-bottom, that we have omitted to notice the hedges themselves, which are white with the sweet-scented blossoms of the Hawthorn (*Cratægus Oxyacantha*); this is so striking a feature in the landscape in all parts of the country during the present month, that it is usually called by the name of "May:" its blossoms have occupied a prominent place in the decorations connected with the games of May from time immemorial, and their appearance is hailed with joy by the people of London and other large towns: they welcome them as the heralds of the coming summer, and, whenever an opportunity occurs for a walk in the country, many may be seen on their return laden with a branch of Hawthorn. The Hawthorn is now very rarely in full blossom on the First of the month, although it would seem to have been so in former times, as it was on this day that the practice of "going a-Maying" existed. We

need not go out of our way to account for this, by supposing any change to have taken place in our climate; it is sufficient to remember that, owing to the alteration in the Style in 1752, May-day is now twelve days earlier than it was before this change was made: "Old May-day," as it is called in many Almanacks, is now the 13th of the month. Few of the May-day customs, so prevalent in by-gone days, now survive: it appears, however, that they are not altogether extinct in Cheshire; we had much pleasure in reading a few days since that "the May-day festival at Knutsford passed off with great success in the presence of several thousands of people, the weather being very fine." The festivities seem to have been arranged after the old orthodox fashion, including the election and crowning of a May Queen, a procession through the streets of the town after service in the church, and ending with a dance round the May-pole in the evening. We hope the good people of Knutsford were all the better for their old-fashioned observance of the holiday. It would seem that a May-pole was standing in our own immediate neighbourhood in the early part of the present century. Washington Irving records in his "Sketch Book," published in 1819, the delight which he experienced on first seeing a May-pole. "It was," he

says, "on the banks of the Dee, close by the picturesque old bridge that stretches across the river from the quaint little city of Chester. . . . . The mere sight of this May-pole," he goes on to say, "gave a glow to my feelings, and spread a charm over the country for the rest of the day; and as I traversed a part of the fair plains of Cheshire, and the beautiful borders of Wales, and looked from among swelling hills down a long green valley, through which 'the Deva wound its wizard stream,' my imagination turned all into a perfect Arcadia." But we must not, like the eloquent American writer, indulge in any such flights of the imagination, or we shall not get through our walk. *Revenons à nos moutons*, or rather to our hawthorn-bush, under the shade of which, however, sheep delight to congregate; we have a few words more to say in connection with it. The Hawthorn is seen principally in hedges, and in such positions it is not suffered to grow to any great size; but when standing alone it frequently attains a height of twenty feet or more, and, when old, is a remarkably picturesque object; its trunk frequently divides into five or six stems, giving to a single tree the appearance of a group. There are a great many very old trees with their trunks thus divided, and of singularly fantastic forms,

in a part of Bushey Park, close to the village of Hampton, in Middlesex; the Park is said to derive its name from the presence of these trees. The wood of the Hawthorn is remarkably hard and tough; it is this quality that gives name to the genus, *Cratægus* being derived from the Greek word for strength (κρατος). The fruit of the Hawthorn furnishes a supply of winter food for many of our berry-eating birds, and an abundance of haws is considered by many to forebode a hard winter; whether this be so or not, we will not undertake to determine, but it is certain that a great number of birds, both regular residents and winter visitants, derive a large portion of their food from these trees, and without which supply numbers of them would undoubtedly perish during a severe winter.

Another tree, not uncommon in our hedges, is the Crab-tree (*Pyrus Malus*); when in full blossom, as it is at this season, it is one of the greatest ornaments of our hedge-rows. The Crab-tree is no doubt the original stock of the many varieties of cultivated Apples now found in our gardens and orchards, we were going to write *innumerable* varieties, but the Catalogue of the Horticultural Society of London gives the *number* 1400! No fruit is brought to greater perfection in this country than the apple;

the climate and soil seem to be specially suited to it. The Apple-tree also thrives well in America; some of the fruit imported from there is fully equal in flavour to our choicest varieties, although its *appearance* when it reaches this country is by no means attractive.

The plant which we see climbing gracefully up the hedge and spreading over its top is the Red-berried Bryony (*Bryonia dioica*); its large rough palmate leaves are not unlike those of some of the Cucumber tribe, to which family (*Cucurbitaceæ*) it belongs; it is our only native species of this Order, which contains the Cucumbers, Gourds, Melons, Vegetable Marrows, Pumpkins, &c., of our gardens. All these plants have long stems, which either lie prostrate on the ground or climb by means of tendrils. The flowers of the Bryony are greenish-white, veined with dark green lines, and growing in stalked clusters of three or four together in the angle between the leaf and the stem; the berries when ripe are of a deep red, round and smooth, but not glossy; they are poisonous, but in a less degree than those of some other plants. The plant is much more frequent in the south of England than in the midland or northern counties, but it may be found in a few localities around Chester.

The large handsome tree in the corner of the field adjoining our lane is the Sycamore, or Great Maple (*Acer Pseudo-platanus*); its specific name signifies the Mock Plane, and is given to it from the resemblance of its leaves to those of the Plane-tree. The tree is now in its greatest beauty, being filled with elegant drooping clusters of green flowers, which make their appearance even before the leaves are fully expanded; these flowers abound with honey, and, as very few honey-yielding flowers are yet in blossom, they are a great attraction to bees. All the trees of this order (*Aceraceæ*) yield a saccharine juice, from which sugar is sometimes manufactured; this may be obtained from the Sycamore, but not in any great quantity: an allied species, the Sugar Maple (*Acer saccharinum*), a common tree in Canada and other parts of North America, yields it in great abundance, and maple sugar is there a most important article of manufacture. The wood of the Sycamore is very close-grained, and not being very hard it is easily worked, either by the hand or the lathe; it is much used by turners and cabinet-makers, and also for making musical instruments, and various kinds of toys. Our tree must not be confounded with the Sycomore of the Scriptures, which was a sort of Fig-tree (*Ficus Sycomorus*), partaking, as its name denotes, of

the nature of the Fig-tree and of the Mulberry-tree; it resembles the Mulberry-tree in its leaves, and the Fig-tree in its fruit.

We have now reached the end of the lane: at the angle which it forms with the road, into which it has brought us, is a pond; this pond may perhaps yield us some fresh flowers. Yes—near the edge is a large patch of the Water Crowfoot, one of the Ranunculus family (*R. aquatilis*): notice the difference between the floating leaves and those which are submerged; the former are three-lobed, each lobe being further divided into segments, whilst the latter are all capillary, or hair-like. The genus Ranunculus is named from the Latin word for a frog, *rana*, many of the species growing in places where frogs abound: some botanists, however, attribute the origin of the name to the fact of the divided leaves in some species bearing a resemblance to the foot of a frog. Many species of Ranunculus are extremely acrid: two of them, *R. acris*, and *R. bulbosus*, which are common in almost every meadow throughout Britain, are particularly so, and are rejected as food by most animals. The idea that the yellow tint which butter often has in summer is owing to its being made from the milk of cows that had fed upon the Buttercup may be regarded as a vulgar error, as cows do not

willingly eat it. The Order *Ranunculaceæ*, which is named from this genus, contains some of the most dangerous of poisonous plants, as the Monkshood (*Aconitum Napellus*), the Hellebores (*Helleborus viridis*, and *H. fœtidus*), the Baneberry (*Actæa spicata*), and others. Before we take leave of the Ranunculi, we may mention, for the benefit of our botanical friends, localities for two of the species which are by no means common, viz., *R. fluitans* and *R. parviflorus:* the former is abundant in the canal between Chester and Backford, and the latter may be found on a dry bank on the right-hand side of the road on entering the village of Caergwrle from the Rossett.

We have by no means exhausted the flowers in the lane through which we have passed, but we must remember that there are other localities which we have set ourselves to explore: this gate on our left stands invitingly open, let us enter the field, and see what flowers it produces. The first to attract our attention are the Cowslips (*Primula veris*, or *Primula officinalis*), with which the meadow is covered. Intermingled with the Cowslips, and towering above them, are many fine plants of the Cuckoo-flower, or Lady's Smock (*Cardamine pratensis*), whilst here and there may be seen the showy spikes of the

Early Purple Orchis (*Orchis mascula*). We must devote a few minutes to each of these; they are all deserving of our attention, and will well repay us for any care we may bestow upon their examination. It does not need more than the most cursory glance to recognize the close alliance between the Primrose and the Cowslip; indeed, not only the Primrose and the Cowslip, but the Oxlip also, are regarded by some botanists as merely varieties of the same species: they are so termed in Bentham's "Handbook of the British Flora." In one of those pleasant rambles in the country around Cambridge, of which all who ever took part in them delight to indulge in the remembrance, the late Professor Henslow once told the writer of this gossiping article that he had raised Primroses, Cowslips, and Oxlips, all from the seed of the same plant. This would seem to be conclusive as to the identity of the species; but those who hold the opposite theory, of a distinction of species, consider that sufficient precautions were not taken in this and similar experiments to prevent the pollen of one flower from being conveyed to the other by insects. There is occasionally a tendency of one species, or variety—whichever we may consider it to be—to run into the other. We have found instances where the stalks of several Prim-

roses have *grown together*, and the flowers, become smaller than usual, have had the appearance of being on separate pedicels, forming an umbel, but a less regular one than that of the Cowslip. The flowers of the Cowslip are slightly narcotic, and a wine is made from them, which possesses this property. With regard to the Oxlip, we are inclined to think that there are two different flowers bearing this name; the one, Jacquin's Oxlip (*Primula elatior*), a really distinct species, which seems to be confined to three counties on the Eastern side of England, Essex, Cambridge, and Suffolk; whilst the other, the common Oxlip, is no doubt a hybrid between the Primrose (*P. vulgaris*) and the Cowslip (*P. officinalis*), and to which Dr. Boswell Syme, the Editor of the new edition of the "English Botany," has given the specific name of *officinali-vulgaris*, a combination of the specific names of the two parent plants. This is never, we believe, found except where Primroses and Cowslips are growing near each other, and it is then rarely met with. We found a solitary specimen in such company in the spring of last year in a field adjoining Crewe Park, in this county. The Bird's-eye Primrose (*Primula farinosa*), an elegant plant, with pale lilac flowers, is found only in the six northern

counties of England, in the mountainous pastures of which, especially in the Lake District, it is not unfrequently met with; its specific name signifies "mealy," and is given to it on account of the under side of the leaves, and also the stem of the plant, being covered with a yellowish-white meal. Before taking leave of these interesting flowers, we may call the attention of our young readers to the peculiar position of the stamens, which are *epipetalous*, i.e., adherent to the petals, instead of springing from their base, as is the case in the generality of flowers.

The next flower that claims our attention is the *Lady's Smock*, said to be so called from the blossoms, when a number of them are together, having the appearance of linen spread out to bleach: the flowers, however, though sometimes pure white, are more frequently of a pale lilac colour. Its other names, of Cuckoo-Flower and May-Flower, of course, refer to the season of its appearance. The flowers are large and showy, and are sometimes found double; and our *Old* friend, Mr. John Price, has, in various periodicals, called attention to the fact that the leaflets are occasionally, in damp seasons, *proliferous*, *i.e.*, they produce young plants on their edges; so that the plant may be propagated in this way, as

well as by seeds. Another species of Cardamine (*hirsuta*) is very common on hedge banks, in loose sandy soil; it has small white flowers, and the plants vary in size from three inches to a foot or more in height, according to the soil and situation in which they grow. We have already spoken of the Order, *Cruciferæ*, to which these plants belong.

Our next flower is the Orchis, which we noticed on first entering the field. This species (*Orchis mascula*) is generally distributed throughout the British Isles, and is therefore perhaps, the best known of all the family. The peculiar structure of these flowers, their amazing variety—3,000 species are enumerated—the mode of existence of the greater portion of them, and the fantastic forms which many of them assume, all combine to render the Orchis family the most remarkable one in the vegetable world. All the British species, of which there are about forty, are terrestrial, and are found chiefly in shady woods and damp pastures, whilst some are confined to chalk and limestone districts; but by far the greater number are natives of tropical countries, where they are chiefly aërial, decorating the trees with the most splendid colours and the most eccentric forms, and deriving their nourishment from the moist atmosphere by which they are sur-

rounded. The singularity of appearance in this tribe of plants arises from the form of the lower portion of the corolla—the *labellum*, or lip, as it is called: amongst our native species we have some resembling bees, flies, spiders, butterflies, frogs, monkeys, lizards, and even the human species. It is supposed that the peculiar resemblance which the blossoms of some species bear to certain insects is a wise arrangement of Providence for the purpose of attracting these insects to the flowers, and of securing their agency in the work of fertilization. The stamens and pistils in these flowers are peculiarly situated with respect to each other, so that some assistance seems necessary to bring the anther of the one to act upon the stigma of the other; and this assistance is usually rendered by insects. Commentators upon Shakespeare have differed in opinion as to whether the "long purples" alluded to by the poet, as forming part of the "fantastic garlands," with which the mad Ophelia was in the habit of decking herself, were the dark spikes of the *Arum maculatum*, or the flowers of the Purple Orchis: the latter is the more probable, as the stiff spadix of the Arum could with difficulty be woven into a garland.

Let us now make our way to the farther side of

the field, where it is bounded by a small brook: on the banks of this we are sure to find some flowers that we have not yet met with in our walk. We will keep our eyes open as we proceed, as the lower part of the field is somewhat marshy, and we may come upon some plants which thrive in such places. Here is a specimen of the common Bugle (*Ajuga reptans*), a labiate plant, with the square stem which is characteristic of the Order, and dull purplish-blue flowers; the upper leaves also are often of a purplish hue. The plant sends up a solitary erect stem, usually about six or eight inches high, and it has besides long creeping scions, which lie on the ground and are sometimes nearly a foot in length. The Order *Labiatæ* is a very extensive one, containing, according to Professor Balfour, 2470 species, which are spread over every quarter of the globe, but they are found chiefly in temperate regions. Many of them are fragrant and aromatic, and none of them are poisonous or injurious. They are readily known by their square stems and opposite leaves, their irregular monopetalous corollas, and their didynamous stamens. In the bottom of the persistent calyx there are four achenes or nuts resembling naked seeds, and Linnæus, under the impression that the seeds were

really without any covering, gave the name of *Gymnospermia* to the division of his class *Didynamia*, which includes most of the Natural Order *Labiatæ*. These plants owe their fragrance to the essential oils contained in the leaves; the various species of Mentha, or Mint, yield it abundantly. Several of the Labiates, as Mint, Thyme, Marjoram, Sage, &c., are used for culinary purposes, principally as flavouring herbs; whilst others are important ingredients in perfumes.—Here we have another marsh plant, the Common or Procumbent Lousewort (*Pedicularis sylvatica*), with spreading prostrate branches, deeply-cut leaves, and large rose-coloured *bilabiate*, or two-lipped flowers. The name of this genus is derived from *pediculus*, a louse, the plants being supposed to generate these insects in sheep that feed upon them; the disease, however, is much more likely to be caused by the wet pastures in which these plants usually grow. The Lousewort belongs to the Natural Order, *Scrophulariaceæ*, which we have already spoken of as containing a great variety of beautiful flowering plants.

Here we are at the brook: conspicuous amongst the flowers on its banks are the Common Comfrey (*Symphytum officinale*), the Weasel-snout or Yellow Archangel, (*Lamium Galeobdolon* or *Galeobdolon*

luteum), the Broad-leaved Garlic or Ramsons (*Allium ursinum*), and the Marsh-Marigold (*Caltha palustris.*) The Comfrey is a stout branched plant, two or three feet high, with large rough hairy leaves, sometimes nearly a foot in length, and drooping bell-shaped flowers either yellowish-white or of a dull purple colour. The leaves of this Order of plants (*Boraginaceæ*) are mucilaginous and cooling: those especially of the Borage (*Borago officinalis*), which gives name to the Order, have long been used as an ingredient in "claret cup" and other favourite summer drinks. Cows appear to be fond of the Comfrey: its numerous large leaves and its succulent stem afford abundant nourishment, and the plant might be advantageously cultivated in moist lands as food for cattle. Many of the plants of this Order have a scorpioid inflorescence, *i.e.*, the primary axis or flower-stalk is curved round into a scroll-like form, resembling the tail of a scorpion; this curvature is caused by the buds on the upper part of the axis being developed only on one side: it may be seen in the Comfrey, the Viper's Bugloss (*Echium vulgare*), the Forget-me-not, and other species of Myosotis. The English name of the genus Myosotis is Scorpion-grass, in allusion to this peculiar form of inflorescence.

The next flower that we have to speak of is the Weasel-snout or Yellow Archangel. The general appearance of this plant is like that of the Dead-nettles, and it is placed by most botanists in the same genus with them—Lamium. Linnæus assigned it to the genus *Galeopsis*, but it has long been removed from this, and in some authors it stands alone as the genus *Galeobdolon*. Its English name of Weasel-snout is given to it from the supposed resemblance of the flower to the face of that animal; how it obtained its high-sounding name of Archangel it is impossible to say. It is rather a handsome plant, often nearly two feet high, with deeply-serrated leaves and whorls of bright yellow flowers, the lower lip of which is spotted with red. It is by no means a common plant, but is widely distributed, becoming rare, however, in the northern counties of England. We may mention two localities for it within a short distance of Chester: one in Hawarden Park, in which it is sparingly scattered along the banks of the little stream which runs through the lower part of the park; the other, in which it is more plentiful, is a small wood between Bolesworth Castle and the village of Harthill.

We must now turn to the Broad-leaved Garlic: this plant, before the appearance of the blossoms, is

sometimes mistaken for the Lily of the Valley: it is indeed one of the same family (*Liliaceæ*), but its *qualities* are in strong contrast to those of the Lily, the delicious fragrance of which charming plant is well known to all lovers of flowers. Any one who has been under the delusion we have mentioned above will be soon undeceived, as the leaves of the Garlic when bruised emit a strong disagreeable odour. The flower-buds are enclosed in a spathe, which falls off when the flowers are expanded, and the umbel, consisting of about a dozen flowers of a pure white, has a really handsome appearance: its over-powering smell, however, must exclude it from the bouquet, should we wish to form one of our May flowers. The Onion, the Leek, the Garlic, the Chive, and the Shallot, used as articles of diet, are all species of Allium.

The bright golden-yellow flowers of the Marsh-Marigold and its shining leaves render this plant one of the greatest ornaments of the water-side at this season of the year. A slight glance at the flower will show that it belongs to the Ranunculus family; it has also the acrid property which many of these possess. This flower is *monochlamydeous*, *i.e.*, it has only a single whorl of floral envelopes, which, from its colour, Linnæus considered to be a

corolla, but all modern botanists pronounce it to be a calyx; the flower therefore has no true corolla. The calyx in most flowers is green; when otherwise it is said to be *coloured*, green, in the language of botanists, not being regarded as a colour.

We must now look out for a convenient place for crossing the brook: it is much shallower higher up, and we may perhaps find some stepping-stones which will enable us to reach the other side. Here is what we need; let us at once avail ourselves of their aid. Being safely landed we will ascend the steep path before us, which leads directly to the wood, which we must remember that we have to explore, and which, we imagine, will yield us a rich harvest.—The Wild Hyacinth, or Blue-bell is the first flower to catch the eye on entering the wood, the ground in all directions being covered with it. We will first notice the different scientific names that are given to this flower. Linnæus calls it *Hyacinthus non-scriptus;* in Bentham's "British Flora," and in the "English Botany," it is classed with the Squills, as *Scilla nutans;* Hooker and Arnott term it *Agraphis nutans;* and Professor Babington, *Endymion nutans.* We have not space to mention all the stories that are related as to the origin of the flower and its name: the oldest legend is that it sprang

from the blood of Hyacinthus, a beautiful youth who was accidentally killed whilst playing at quoits with Apollo, and on the leaves of the plant appeared the Greek characters, AI, AI, alas, alas, Apollo's exclamation of grief for the loss of his favourite. But we will let Ovid tell the story:—

"Talia dum vero memorantur Apollinis ore,
"Ecce cruor, qui fusus humi signaverat herbam,
"Desinit esse cruor: Tyrioque nitentior ostro
"Flos oritur; formamque capit, quam lilia, si non
"Purpureus color huic, argenteus esset in illis.
"Non satis hoc Phœbo est: is enim fuit auctor honoris.
"Ipse suos gemitus foliis inscribit: et ai, ai,
"Flos habet inscriptum: funestaque litera ducta est."*

OVID. Met. x. 209-216.

As our British species has no trace of these words of sorrow—we question whether any of them have—it was called *non-scriptus*. The generic name *Agraphis* has the same meaning. The specific name "nutans," *nodding*, refers to the drooping of the flowers. The flowers vary in colour from a light blue to a dark purple; occasionally a plant may be found with white flowers, caused no doubt by some property in

* As we hope to have many lady readers, we will translate our quotation for their special benefit:—"Whilst such things are being uttered by the prophetic lips of Apollo, lo, the blood, which falling upon the ground had stained the grass, ceases to be blood; and a flower springs up, brighter than the Tyrian purple, and assumes the form which lilies have, except that in this the colour is purple, whilst those are of a silvery hue. But this is not enough for Phœbus, for he was the author of this honour. He inscribes his own lamentations on the leaves, and the flower has 'ai, ai' inscribed upon it, and the mournful character is traced there."

the soil. The flower-stalk and the bulb are full of a thick slimy juice, which is acrid and poisonous.

The umbelliferous plant, with large palmately-divided leaves, which we see around us, is the Wood Sanicle (*Sanicula Europæa*), a very common woodland flower. The flowers form an irregular umbel, and besides the general umbel there is also a branch lower down the stem bearing three small heads of flowers. The leaves are dark green on the upper side, and paler beneath, and are often slightly fringed at the edges; the stem of the plant is somewhat coloured, and the flowers are usually tinged with red. The name of the plant, both in Latin and English, is derived from *sanare*, to heal, it having been formerly in great repute throughout Europe both as a remedy for internal complaints, and more especially as an outward application for hurts and wounds. Some writers, however, consider the word *Sanicula* to be a corruption of *Saint Nicholas*, through whose intercession various miraculous cures are said to have been effected. We incline to the first-mentioned derivation of the name: at the same time we record our belief that the plant, so far from possessing any curative properties, is unwholesome and injurious. As this is the first umbelliferous plant that we have had

occasion to speak of, we must say a few words about the Order, which is a very extensive and important one. Authors enumerate 1,576 species, upwards of sixty of which are natives of Britain. The family is a perfectly natural one, and the plants belonging to it are in general easily known by the inflorescence; they have mostly hollow furrowed stems, alternate leaves, often much cut or divided, and small white, yellow, or greenish flowers in terminal or lateral umbels, with a whorl of bracts at the base of the umbel, constituting the *involucre*. The properties of the plants of this Order are various: among the esculent species may be mentioned the Carrot, Parsnep, Celery, Parsley, Fennel, Angelica, and Samphire. The last-named plant, the Rock Samphire (*Crithmum maritimum*) is not much used now, perhaps from the difficulty and danger attending the "dreadful trade" of gathering it. Shakespeare has immortalized this plant by his mention in "King Lear" of the hazardous mode of collecting it from the precipitous cliffs of Dover. It grows abundantly in some parts of the south of England, on rocks near the sea, always, we believe, above high-water mark, but within reach of the spray. The Glasswort (*Salicornia herbacea*) is sometimes called the Marsh Samphire: this is found in muddy

salt-marshes on various parts of our coast, especially near the mouths of tidal rivers, and being more common than the true Samphire, and more easily collected, it seems to have usurped its place as a pickle, as well as its name. It is, however, very inferior, as it is without the aromatic flavour of the Crithmum. The Salicornia is plentiful on the muddy shores of the Mersey, in the neighbourhood of Ince, and it may occasionally be seen exposed for sale in Chester market. But we must finish our remarks upon the *Umbelliferæ:* the seeds of several species are aromatic, and are often used for flavouring in cookery; those of the Caraway, Dill, Anise, Coriander, and Cummin, may be mentioned as examples. Many of the Order are poisonous, especially such as grow in watery places: amongst these are the Hemlock (*Conium maculatum*), Hemlock Water-Dropwort (*Œnanthe crocata*), Water Hemlock or Cowbane (*Cicuta virosa*), Fool's Parsley (*Æthusa Cynapium*), Water Parsnep (*Sium latifolium*), and some others.

Here is another plant of a decidedly dangerous character, but which was formerly in repute as a medicine, being recommended both for external and internal use by the old herbalists: it is the Dog's Mercury (*Mercurialis perennis*), and is abundant in

woods and on shady hedge-banks in all parts of England. It bears small green flowers, the males and females on separate plants; hence it is placed in Linnæus's Class, *Diœcia*, which consists of plants of this unsociable character; it belongs to the Natural Order, *Euphorbiaceæ*, the Spurge Family. The male and female plants are usually found in patches, apart from each other, like monasteries and nunneries.

We have now come upon one of the prettiest flowers we have met with, or are likely to meet with, in our walk—the elegant little Wood Sorrel (*Oxalis Acetosella*). This graceful plant is generally considered to be the original Irish Shamrock, although the name has long been applied to the common Dutch Clover (*Trifolium repens*). It was one or other of these plants—most probably the Wood Sorrel—by which St. Patrick, the tutelar saint of Ireland, when preaching to the inhabitants of that country, attempted to illustrate the great doctrine of the Trinity, by pointing to its triple leaflets as a symbol of the triune nature of the Deity. The flower of the Wood Sorrel is remarkably pretty, having white petals delicately pencilled with purplish veins; its leaves are all radical, *i.e.*, springing directly from the root, each leaf being formed of three

inversely heart-shaped pale green leaflets. The leaves have a most agreeable acid flavour, which, however, is owing to the presence of a powerful poison, Oxalic Acid, called by chemists *binoxolate of potash*. This is the Essential Salt of Lemons, used for removing ink stains and iron-moulds from linen. Both the flower and the foliage of our little plant are peculiarly sensitive, the petals closing and the leaves folding, not only on the approach of evening, but whenever the atmosphere is overcharged with moisture. The genus *Oxalis* is placed by some botanists in the Natural Order *Geraniaceæ*, but others form a separate Order, *Oxalidaceæ*, which takes its name from this, its only British genus.

The small bright yellow flower mingled with the Wood Sorrel, and forming by its colour a pleasing contrast to it, is the Wood Loose-strife, or Yellow Pimpernel (*Lysimachia nemorum*). Its stem is procumbent, from six inches to a foot in length, and very brittle: the leaves are opposite and egg-shaped, and the flowers, which are of a rich yellow, are solitary and axillary. Most of the genus *Lysimachia* grow in wet places; in the moist part of the wood we shall probably find another species, *L. Nummularia*, called in English Moneywort, from its rounded leaves; its specific scientific name has the same

meaning, *nummulus* being the Latin word for a small coin. It is a very pretty plant, and, although its usual habitat is by the sides of ditches and streams, it grows freely on rock-work, and is well worth the trouble of cultivating. The Great Yellow Loose-strife *(L. vulgaris)*, which we may call the head of the family, is a handsome plant, often three feet or more in height, and is a great ornament to the banks of rivers and brooks in most parts of England, but we have not met with it in this neighbourhood. *

Here is a singular little flower that deserves notice, were it merely for its humble unpretending appearance. Its generic name, *Adoxa*, signifies "without glory;" and if the glory of a flower consists in glaring colours, this one is certainly rightly named. The flowers are of the same colour as the leaves, of a pale green, and the plant is consequently inconspicuous and often overlooked. Its specific name, *moschatellina*, is given to it from the flowers having a slight smell of *musk*. Its ordinary English name is the Tuberous Moschatel. We must try to describe the flowers, which are somewhat anomalous: each head consists of five flowers, forming together

* Since the above was written, specimens of *Lysimachia vulgaris* have been brought to me, from Eaton Park, and from the neighbourhood of Belgrave.

a little cube; the four flowers at its sides have each a five-cleft corolla and ten stamens, whilst the terminal one has eight stamens and its corolla is four-cleft. Although the *tens* predominate, yet, because the crowning flower contains only eight stamens, the Adoxa is placed in the Linnæan Class *Octandria*. Its proper position in the Natural System also seems to have puzzled botanists. It is usually placed in the Order *Caprifoliaceæ*, with the Honeysuckle, the Elder, and the Guelder-rose, its resemblance to which the tyro would be puzzled to discover. Others place it in the Order *Araliaceæ*, the Ivy Family. The plant is widely distributed, but by no means common, although, as we have said, it may be often overlooked. It grows in shady places, under hedges and in woods. One locality for it in this neighbourhood is in the hedge by the towing-path of the canal, between Chester and Backford, near where the Birkenhead Railway crosses the canal; it may also be found in the lane between Mollington and Backford; it is plentiful in the shady part of the lane leading from the Beeston Station to Beeston Castle; and it is very abundant in the woods around Crewe Hall.

The Wood Strawberry (*Fragaria vesca*) is now in blossom; this fruit, which is abundant in all

parts of Britain, is the origin of all our cultivated varieties of Strawberry. * These, like many other of our fruits and vegetables, the originals of which are indigenous, are so altered and improved by cultivation, that it is difficult to trace any resemblance between the large rich fruit with which our gardens supply us, and the small wild strawberry of our woods and hedge-banks. The wild plant, however, whether in blossom or adorned with its drooping bright scarlet berries, is a very pretty object, and must be admired by every one. The fruit is generally so small that many would consider it not worth the trouble of gathering; but occasionally it may be found of a tolerable size and of a very agreeable flavour. In one of our botanical rambles in July last we came upon a large bed of unusually fine wild strawberries in the woody part of Ditchley Park, in Oxfordshire, once the residence of the stout-hearted cavalier, Sir Henry Lee, whose character and devotion to the royal cause are so admirably portrayed in Sir Walter Scott's novel of "Woodstock." There can be no difference of opinion as to the origin of the scientific name of the Strawberry, which is evidently from the word *fragrans*, sweet-smelling, in allusion to the pleasant perfume

* See Letters and Note at the end of the Paper.

of the fruit; but several different suggestions have been made respecting the origin of the English name; we have always been accustomed to consider it to have arisen from the common practice in the market gardens around London of laying straw between the rows to prevent the fruit being soiled. Many acres may be be seen thus protected in the neighbourhood of Isleworth. Antiquaries may perhaps tell us that the name is of much earlier date than the practice we have referred to. The Strawberry belongs to the Natural Order, *Rosaceæ*, which includes a large portion of the fruits that are grown in this country: amongst these are the Apple, Pear, Cherry, Plum, Apricot, Peach, Nectarine, Almond, Raspberry, &c. The structure of the Strawberry deserves attention: the pulpy mass which we are accustomed to call the *fruit* is really the enlarged succulent receptacle, which in its earlier state, supported the several parts of the flower; the numerous little protuberances which are scattered over the ripened receptacle, and which are commonly called seeds, are the real fruit of the Strawberry.

In shady places, under some of the trees around us, we shall find the Sweet Woodruff (*Asperula odorata*), a small plant, from six inches to a foot in

height, of a bright shining green, with whorls of from six to nine leaves around the stem, and panicles of small white flowers, branching into threes springing from the uppermost whorl of leaves. In drying the plant emits a pleasant odour, like that of new hay, and, as it retains its scent a long time, it may be used like lavender for perfuming the contents of the wardrobe. This delightful fragrance is scarcely perceptible when the plant is fresh gathered, unless the leaves are bruised. Withering says that "its strongly aromatic flowers infused in water make a beverage which far exceeds all the teas of China;" and another writer states that "it is a sure quickener of the appetite, if gathered in the woods soon after sunrise." We recommend some of our friends to test for themselves the truth of this latter statement. We will guarantee them a good appetite for their breakfast on their return from their woodland ramble. The Woodruff belongs to the Natural Order *Rubiaceæ*, the Madder Family. All the British species of this family are included in the Suborder *Stellatæ*, which is so named from the star-like whorls of leaves, a distinguishing feature of the tribe.

On the high ground in the upper part of the wood, where it is more open, we shall find some

Bilberries, or rather, we shall find the blossom; the fruit will not be ready for us until July. The scientific name of the Bilberry is *Vaccinium Myrtillus*, and it belongs to the Natural Order, *Ericaceæ*, the Heath Family. It is a small shrub, seldom more than a foot in height: the flowers are of a pinkish hue, and, like many of the heath tribe, of a wax-like appearance; in shape they resemble a little pitcher or urn, *urceolus*, from which word the term *urceolate*, applied to this form of corolla, is derived. The berries are about the size of currants, of a purplish-black, covered with a bloom resembling that on the sloe: they are very wholesome and of an agreeable flavour, and make excellent tarts and puddings—*experto creda*. Bilberries are abundant in mountainous districts, where they form the favourite food of grouse and other game birds. They may be obtained in a few places near Chester: for instance, on the Overton Hills, near Frodsham; on various parts of the range of hills stretching from Broxton to Beeston Castle; on the sides of the hill on which Caergwrle Castle stands, and more plentifully on the hills above the village; and a few may be found in Hawarden Park, near the village of Pen-y-mynydd.

Let us now glance at some of the loftier occupants of the wood: this elegant tree, covered with

large clusters of cream-white flowers, is the Mountain Ash, or Rowan-tree (*Pyrus Aucuparia*), one of the greatest ornaments of the shrubbery, not only by its flowers, but by its beautiful foliage, and in the autumn by its bunches of coral-red berries:

"The Mountain Ash
"No eye can overlook, when 'mid a grove
"Of yet unfaded trees she lifts her head,
"Decked with autumnal berries that outshine
"Spring's richest blossoms."

WORDSWORTH.

These berries are a great attraction to various species of singing birds, especially the thrush and the blackbird: the specific name *Aucuparia* (from *auceps*, a fowler) is given to the tree, from the practice amongst the bird-catchers of France and Germany of baiting their traps with its berries as a certain lure for thrushes, fieldfares, and redwings. A liquor resembling cider is said to be made from the berries in Wales and the Highlands of Scotland. In former days the Mountain Ash was regarded with superstitious veneration, being considered as the best antidote to witchcraft, and it was planted near cattle-sheds for the purpose of warding off evil from their inmates. The wood of this tree is close-grained, and susceptible of a high polish; it is used by turners in the manufacture of small articles. In the days of archery, bows were sometimes made

from the Mountain Ash, and the tree was planted in the churchyards of Wales to be at hand for this purpose, as the yew-tree was in the churchyards in England.

The Oak, the Elm, the Ash, and several other trees, are now in blossom, but the most striking looking tree at this season is undoubtedly the Horse-Chestnut (*Æsculus Hippocastanum*). Its large pyramidal spikes of flowers, of a snowy white, with a slight touch of pink or yellow in the throat of each, render this tree peculiarly ornamental. In the depth of the forest its beauties are lost, but when standing alone, or on the outskirts of the wood, or in the stately avenue, it is seen to perfection. In Bushey Park, the picturesque hawthorns of which we have before spoken of, there is an avenue of splendid Horse-Chestnuts, a mile in length: it is a great attraction to Londoners during this month, and is annually visited by thousands. Many readers of the *Times* have no doubt accepted an invitation, repeatedly given in that paper for the last two or three weeks, to view this noble avenue from the windows of the King's Arms Hotel, Hampton Court, which is situated exactly opposite the entrance to the Park. The Horse-Chestnut is a native of Northern India, and was introduced into Europe

about the middle of the sixteenth century. The generic name *Æsculus* is derived from *esca*, food, but the fruit is not fit for human food, being excessively bitter and disagreeable. Deer delight in it, and, when crushed, sheep and other animals will eat it and fatten upon it. Our tree belongs to the Natural Order, *Sapindaceæ*, the Soapwort Family, which takes its name from the saponaceous principle contained in the fruits of some species; the Horse-Chestnut possesses it to a certain extent; by scraping the ripe nut into water a lather may be formed which has all the effects of soap.

Our time, and the space allotted to us, will not allow of our indulging in any further gossip about the flowers of the month. Before we conclude, however, we must thank those who have accompanied us in our imaginary walk; we hope they have not found it wearisome, and that they will not consider the time as altogether mis-spent. If we have succeeded in exciting any interest in the subject, and have convinced any of our readers that both pleasure and profit may be derived from the study of Botany, our labour will not have been in vain: we shall be amply repaid if we feel that we have opened out a new source of enjoyment to a single individual, and pointed to a field of recreation which may prove

healthful to both mind and body. We ourselves have often, when wearied with some graver study, found relief from a stroll in the garden or the fields, where the first flower that presented itself has furnished a pleasing subject for reflection, soothing and tranquillizing the mind, and restoring it to a healthy tone. He who makes Nature his study is never at a loss for amusement; he is not dull because he is alone, for he will find "tongues in trees" with which he can hold converse; and every object he meets with in his rural walk will be matter of interest to him, and may furnish some useful and instructive lesson:—

"Not a tree,
"A plant, a leaf, a blossom, but contains
"A folio volume. We may read, and read,
"And read again, and still find something new,
"Something to please, and something to instruct,
"E'en in the noisome weed."

HURDIS.

Besides the direct advantages resulting from the study of Botany—in a knowledge of plants and the uses to which they are or may be applied—many valuable lessons will be indirectly gained during the progress of the study. The mental training acquired by the study of natural science is fully equal to that derived from any of the ordinary subjects of education—from either classical or mathematical studies, for instance. The qualities that are brought into

play in scientific pursuits are such as must be useful in the every-day business of life, qualities which these pursuits will quicken and increase in a way which no other studies perhaps are capable of. In Botany, for example—the easiest and most practicable branch of Natural History—the attention to minute particulars required in the examination of the structure of flowers, to enable the learner to assign them to their respective classes and orders, cannot fail to strengthen the power of accurate observation, and to beget a habit of discrimination and arrangement, which will be of advantage in every situation in life. And, moreover, the neatness of manipulation which will be acquired, after a little practice, in preparing specimens for the herbarium—for we would advise all our friends to form collections of plants—will be productive of systematic order and arrangement in matters more important. The searching for plants for the herbarium will lead to many a pleasant, health-promoting excursion, and the specimens thus collected, when prepared and arranged, will furnish agreeable reminiscences of these holiday rambles, and of the friends and companions with whom they were made. We might mention other benefits to be gained from an insight into the mysteries of the

vegetable kingdom, but the length of this paper warns us to bring our remarks to a close, at any rate, for the present. Should our readers not feel tired of our prosy talk upon "May Flowers," we may perhaps ask them to accompany us in another ramble at a different season of the year. The summer months will present us with a greater variety than we have found in this month, and we may then also have leisure and opportunity to explore localities more distant, and more luxuriant in wild flowers than our own immediate neighbourhood. For the present, we must say—Farewell.

From the Chester Chronicle, June 3rd, 1871.

MAY FLOWERS.

TO THE EDITOR OF THE CHESTER CHRONICLE.

SIR,—In reading an article in your last publication, on "May Flowers," and which hails from the King's School, I perceive the writer has fallen into a considerable error respecting the common wild Strawberry *(Fragaria vesca)*. He says this species of strawberry is the origin of all our cultivated varieties of strawberries. The fact is, none of our fine large varieties of strawberries come from *Fragaria vesca*, but from three other species of foreign origin, viz., *Fragaria grandiflora*, *F. Chiliensis*, *F. Virginiana*. To these we owe our fine varieties of garden strawberries.

Besides *Fragaria vesca* there is another British species, *Fragaria elatior*, and from which the well-known "*Hautbois*" variety of strawberry was raised.

ALPHA.

From the Chester Chronicle, June 10th, 1871.

MAY FLOWERS.

TO THE EDITOR OF THE CHESTER CHRONICLE.

SIR,—"King's School" and "Alpha" are either of them right, either of them partly wrong respecting the Strawberries, according to the stand-point in natural science from which they look at the question. The case is a modern version of the shield with two facings. "King's School" adheres to Mr. Bentham (who now stands at the head of botanists in this

kingdom) in supposing that all the kinds of Strawberries, wild and cultivated, are varieties of one true botanical species. "Alpha" goes along with the greater number of botanists, in reckoning five distinct or primitive species. These differences of opinion arise really from their use of the word *species*, either in a very inclusive sense, or in one more special and restricted. The Strawberry is by no means a solitary instance of such discrepancies among botanists. The Blackberry is perhaps the most decided instance of them among fruits. Mr. Bentham holds that there are only two distinct species of Blackberry wild in Britain; while Professor Babington describes upwards of two scores, which count as true species under his view as to what constitutes a species; other botanists, again, adopting numbers intermediate between the two units and two scores.

Yours, &c.,

H. C. W.

NOTE.

In support of the opinion expressed in the foregoing paper, as to the *common origin* of the different species of Strawberry, I may quote the following:—

The Common Strawberry, *Fragaria vesca*, is found "in woods, bushy pastures, and under hedges, throughout Europe and Russia and central Asia, and in northern America, extending to the Arctic regions. It is abundant in Britain. The *Hautboy*, a rather taller variety, with fewer runners and flowers, usually entirely or partially unisexual, has been distinguished as a species under the name of *F. elatior;* and several other wild or cultivated varieties have been proposed as species, but the great facility with which fertile cross-breeds are produced, gives reason to suppose that the whole genus,

including even the Chilian *Pine Strawberry*, may prove to consist but of one species."

Bentham's "Handbook of the British Flora."

"The Wild Wood Strawberry is the parent of all our cultivated varieties of Alpine Strawberries, as distinguished from the Hautboys, or latter sort of Strawberry, which seems originally to have come from the high woods of Bohemia."

* * * * * * * * * * * *

"The mysteries of horticulture, and the varieties of fruits of all sorts which are produced by the skill of the gardener, increase so rapidly that our native fruits, in which they originate, can scarcely be recognized as related to the beauties which adorn our tables. We see and admire the superb Myatt's seedlings and British Queens, and can hardly trace in their luscious richness the likeness of their humble parents."

Third Edition of "English Botany." vol. 3, edited by Dr. Boswell Syme, F.L.S., &c.

"This (Fragaria vesca) is the origin of the cultivated strawberry."

Macgillivray's Edition of "Withering's British Botany."

Index to the Plants

DESCRIBED, OR REFERRED TO, IN THE

FOREGOING PAPER.

Generic and Specific Names.	*Popular English Names.*
Acer Pseudo-platanus	. Sycamore, or Greater Maple .
—— Saccharinum .	. Sugar Maple . .
Aceras anthropophora	. Green Man-Orchis . .
Aconitum Napellus .	. Wolf's-bane, or Monk's-hood .
Actæa spicata .	. Bane-berry, or Herb Christopher
Adoxa Moschatellina	. Tuberous Moschatel . .
Æsculus Hippocastanum	. Horse-chestnut . .
Æthusa Cynapium .	. Fool's Parsley . .
Agraphis nutans .	. Blue-bell or Wild Hyacinth .
Ajuga reptans .	. Common Bugle . .
Alliaria officinalis .	. Garlic Hedge-mustard .
Allium ascalonicum .	. Shallot . . .
—— Cepa .	. Onion . . .
—— Porrum .	. Leek . . .
—— Sativum .	. Garlic . . .
—— Schœnoprasum	. Chive . . .
—— Ursinum .	. Broad-leaved Garlic, or Ramsons
Amygdalus communis	. Almond . . .
—— persica .	. Peach . . .
—— —— *var.*	. Nectarine . . .
Anemone nemorosa .	. Wood Anemone . .
Anethum graveolens	. Dill . . .
Angelica Archangelica	. Garden Angelica . .
Antirrhinum majus .	. Great Snapdragon .
—— Orontium	. Lesser —— . .
Apium graveolens .	. Celery . .

Natural Orders.	*Linnæan Classes.*	*Page.*
Aceraceæ . .	. Octandria . .	16
. . .	. . .	16
Orchidaceæ .	. Gynandria . .	23
Ranunculaceæ .	. Polyandria . .	18
. . .	. . .	18
Caprifoliaceæ (Araliaceæ)	. Octandria . .	36
Sapindaceæ	. Heptandria . .	43
Umbelliferæ	. Pentandria . .	33
Liliaceæ .	. Hexandria . .	29
Labiatæ .	. Didynamia . .	24
Cruciferæ	. Tetradynamia . .	9
Liliaceæ .	. Hexandria . .	28
. .	. . .	28
. .	. . .	28
. .	. . .	28
. .	. . .	28
. .	. . .	26
Rosaceæ .	. Icosandria . .	39
. .	. . .	39
. .	. . .	39
Ranunculaceæ	. Polyandria . .	2
Umbelliferæ	. Pentandria . .	33
. .	. . .	32
Scrophulariaceæ	. Didynamia . .	4
. .	. . .	4
Umbelliferæ	. Pentandria . .	32

Generic and Specific Names.	*Popular English Names.*
Armoracia rusticana	Horse-radish
Arum maculatum	Cuckoo-pint, Wake Robin, or Lords-and-Ladies
Asperula odorata	Sweet Woodruff
Borago officinalis	Common Borage
Brassica alba	White Mustard
——— oleracea	Cabbage
——— ——— *var.*	Cauliflower
——— Rapa	Turnip
Bryonia dioica	Red-berried Bryony
Caltha palustris	Marsh Marigold
Cardamine hirsuta	Hairy Bitter-cress
——— pratensis	Meadow Bitter-cress, Ladies' Smock, or Cuckoo-flower
Carum Carui	Common Caraway
Cheiranthus Cheiri	Wall-flower
Cicuta virosa	Water Hemlock, or Cowbane
Cochlearia Armoracia	Horse-radish
Conium maculatum	Hemlock
Convallaria majalis	Lily of the Valley
Coriandrum sativum	Coriander
Cratægus Oxyacantha	Hawthorn
Crithmum maritimum	Rock Samphire
Cucumis Melo	Melon
——— sativus	Cucumber
Cucurbita maxima	Pumpkin
——— Pepo	Gourd
——— ——— *var.*	Vegetable Marrow
Cuminum Cyminum	Cummin
Daucus Carota	Carrot

Natural Orders.	*Linnæan Class.*	*Page.*
Cruciferæ	. Tetradynamia .	10
Araceæ (Aroideæ)	. Monœcia .	8
Rubiaceæ *(Stellatæ)*	. Tetrandria .	39
Boraginaceæ	. Pentandria .	26
Cruciferæ	. Tetradynamia .	10
. . .	. . .	10
. .	. .	10
. .	. .	10
Cucurbitaceæ .	. Monœcia .	15
Ranunculaceæ .	. Polyandria .	26
Cruciferæ .	. Tetradynamia .	22
. . .	. . .	18
Umbelliferæ .	. Pentandria .	33
Cruciferæ .	. Tetradynamia .	10
Umbelliferæ .	. Pentandria .	33
Cruciferæ .	. Tetradynamia .	10
Umbelliferæ .	. Pentandria .	33
Liliaceæ .	. Hexandria .	28
Umbelliferæ .	. Pentandria .	33
Rosaceæ .	. Icosandria .	11
Umbelliferæ .	. Pentandria .	32
Cucurbitaceæ .	. Monœcia .	15
. . .	. . .	15
. . .	. . .	15
. . .	. . .	15
. . .	. . .	15
Umbelliferæ .	. Pentandria .	33
. . .	. . .	32

Generic and Specific Names.	*Popular English Names.*
Digitalis purpurea	Foxglove (Folks'-glove)
Draba verna	Common Whitlow-grass
Echium vulgare	Viper's Bugloss
Endymion nutans	Blue-bell, or Wild Hyacinth
Erysimum Alliaria	Garlic Hedge-mustard
Fedia olitoria	Corn Salad, or Lamb's Lettuce
Ficus Sycomorus	Sycomore Fig
Fœniculum vulgare	Common Fennel
Fragaria vesca	Wood Strawberry
Fraxinus excelsior	Common Ash
Galeobdolon luteum	Weasel-snout, or Archangel
Galium	Bed-straw
Geranium molle	Dove's-foot Crane's-bill
——— Robertianum	Herb Robert, or Stinking Crane's-bill
Habenaria bifolia	Butterfly Orchis
——— viridis	Frog ———
Helleborus fœtidus	Stinking Hellebore
——— viridis	Green ———
Hottonia palustris	Water Violet, or Featherfoil
Hyacinthus non-scriptus	Blue-bell, or Wild Hyacinth
Iberis amara	Candy-tuft
Lamium album	White Dead-Nettle
——— Galeobdolon	Weasel-snout, or Archangel
——— purpureum	Purple Dead-Nettle
Lepidium sativum	Garden Cress
Linaria	Toad-flax
Lonicera Caprifolium	Perfoliate Honeysuckle
——— Periclymenum	Common Honeysuckle, or Woodbine

Natural Orders.	*Linnæan Classes.*	*Page.*
Scrophulariaceæ	Didynamia	4
Cruciferæ	Tetradynamia	2
Boraginaceæ	Pentandria	26
Liliaceæ	Hexandria	29
Cruciferæ	Tetradynamia	10
Valerianaceæ	Triandria	6
Urticaceæ	Polygamia	16
Umbelliferæ	Pentandria	32
Rosaceæ	Icosandria	37
Jasminaceæ (Oleaceæ)	Diandria	43
Labiatæ	Didynamia	25
Rubiaceæ *(Stellatæ)*	Tetrandria	6
Geraniaceæ	Monadelphia	7
. . .	. .	8
Orchidaceæ	Gynandria	23
. . .	. .	23
Ranunculaceæ	Polyandria	18
. . .	. .	18
Primulaceæ	Pentandria	5
Liliaceæ	Hexandria	29
Cruciferæ	Tetradynamia	10
Labiatæ	Didynamia	2
. . .	. .	25
. . .	. .	2
Cruciferæ	Tetradynamia	10
Scrophulariaceæ	Didynamia	4
Caprifoliaceæ	Pentandria	37
. . .	. .	37

Generic and Specific Names.	*Popular English Names.*
Lunaria annua	Annual Honesty
Lysimachia nemorum	Wood Loose-strife, or Yellow Pimpernel
——— Nummularia	Creeping Loose-strife, or Money-wort
——— vulgaris	Great Yellow Loose-strife
Matthiola incana	Stock
Melampyrum	Cow-wheat
Mentha viridis	Spear Mint
Mercurialis perennis	Dog's Mercury
Mimulus luteus	Yellow Mimulus, or Monkey-flower
Myosotis palustris	Forget-me-not
——— versicolor	Yellow and blue Forget-me-not
Nasturtium officinale	Water-cress
Nepeta Glechoma	Ground Ivy
Œnanthe crocata	Hemlock Water Dropwort
Ophrys apifera	Bee Orchis
——— aranifera	Spider Orchis
——— muscifera	Fly Orchis
Orchis hircina	Lizard Orchis
——— mascula	Early Purple Orchis
——— Simia	Monkey Orchis
Origanum vulgare	Wild Marjoram
Oxalis Acetosella	Wood Sorrel
Pastinaca sativa	Common Parsnep
Pedicularis sylvatica	Common Lousewort
Petroselinum sativum	——— Parsley
Pimpinella Anisum	Anise
Primula elatior	Jacquin's Oxlip

Natural Orders.	*Linnæan Classes.*	*Page.*
Cruciferæ . .	. Tetradynamia .	10
Primulaceæ .	. Pentandria .	35
. . .	. . .	35
. . .	. . .	36
Cruciferæ . .	. Tetradynamia .	10
Scrophulariaceæ .	. Didynamia .	4
Labiatæ . .	. .	25
Euphorbiaceæ .	. Dicœcia .	33
Scrophulariaceæ .	. Didynamia .	4
Boraginaceæ .	. . .	3
. . .	. . .	5
Cruciferæ . .	. Tetradynamia .	10
Labiatæ . .	. Didynamia .	2
Umbelliferæ .	. Pentandria .	33
Orchidaceæ .	. Gynandria .	23
. . .	. . .	23
. . .	. . .	23
. . .	. . .	23
. . .	. . .	19
. . .	. . .	23
Labiatæ . .	. Didynamia .	25
Oxalidaceæ (Geraniaceæ)	. Decandria .	34
Umbelliferæ .	. Pentandria .	32
Scrophulariaceæ .	. Didynamia .	25
Umbelliferæ .	. Pentandria .	32
. . .	. .	33
Primulaceæ .	.	20

Generic and Specific Names.	*Popular English Names.*
Primula farinosa	Bird's-eye Primrose
——— officinali-vulgaris	Common Oxlip
——— veris	Cowslip
——— vulgaris	Primrose
Prunus armeniaca	Apricot
——— Cerasus	Cherry
——— domestica	Plum
Pyrus Aucuparia	Mountain Ash
——— communis	Pear
——— Malus	Crab and Apple
Quercus Robur	British Oak
Ranunculus acris	Upright Meadow Crowfoot
——— aquatilis	Water Crow-foot
——— bulbosus	Bulbous-rooted Crowfoot, or Buttercup
——— Ficaria	Pilewort, or Lesser Celandine
——— fluitans	River Crowfoot
——— parviflorus	Small-flowered Crowfoot
Raphanus sativus	Common Radish
Rhinanthus crista-galli	Yellow Rattle
Rubus idæus	Raspberry
Sagina procumbens	Procumbent Pearlwort
Salicornia herbacea	Glasswort, or Marsh Samphire
Salvia officinalis	Garden Sage
Sambucus nigra	Common Elder
Sanicula Europæa	Wood Sanicle
Scilla nutans	Blue-bell, or Wild Hyacinth
Sherardia arvensis	Field Madder, or Blue Sherardia
Sisymbrium Alliaria	Garlic Hedge-mustard
Sium latifolium	Water Parsnip

Natural Orders.	*Linnæan Class.*	*Page.*
Primulaceæ	Pentandria	20
. . .	. . .	20
. . .	. . .	18
. . .	. . .	20
Rosaceæ	Icosandria	39
. . .	. . .	39
. . .	. . .	39
. . .	. . .	42
. . .	. . .	39
. . .	. . .	14
Amentaceæ	Monœcia	43
Ranunculaceæ	Polyandria	17
. . .	. . .	17
. . .	. . .	17
. . .	. . .	1
. . .	. . .	18
. . .	. . .	18
Cruciferæ	Tetradynamia	10
Scrophulariaceæ	Didynamia	4
Rosaceæ	Icosandria	39
Caryophyllaceæ	Tetrandria	5
Chenopodiaceæ	Monandria	32
Labiatæ	Diandria	25
Caprifoliaceæ	Pentandria	37
Umbelliferæ	. .	31
Liliaceæ	Hexandria	29
Rubiaceæ *(Stellatæ)*	Tetrandria	5
Cruciferæ	Tetradynamia	9
Umbelliferæ	Pentandria	33

Generic and Specific Names.	*Popular English Names.*
Stellaria Holostea	Greater Stitchwort
——— media	Chickweed
Symphytum officinale	Common Comfrey
Thymus Serpyllum	Wild Thyme
Trifolium repens	Dutch Clover
Tussilago Farfara	Coltsfoot
Ulmus campestris	Common Elm
Vaccinium Myrtillus	Bilberry
Valerianella olitoria	Corn Salad, or Lamb's Lettuce
Verbascum	Mullein
Veronica Chamædrys	Germander Speedwell
Viburnum Lantana	Mealy Guelder-rose
——— Opulus	Common ———
Viola canina	Dog Violet
—— odorata	Sweet Violet
—— tricolor	Heart's-ease, or Pansy

Natural Orders.	*Linnæan Classes.*	*Page.*
Caryophyllaceæ	Decandria	4
. . .	. .	4
Boraginaceæ	Pentandria	25
Labiatæ	Didynamia	25
Leguminosæ	Diadelphia	34
Compositæ	Syngenesia	2
Ulmaceæ	Pentandria	43
Ericaceæ	Octandria	41
Valerianaceæ	Triandria	6
Scrophulariaceæ	Pentandria	4
. .	Diandria	3
Caprifoliaceæ	Pentandria	37
. . .	. .	37
Violaceæ	. .	4
. . .	. .	4
. . .	. .	5